



ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

RESPONSIVENESS SUMMARY

For

Air Quality Control Permit Number 1000165

Issued To

El Paso Natural Gas Company, Hackberry Compressor Station

Begin Public Notice : September 28, 1997

End Public Notice : October 28, 1997

All of the following comments were submitted by El Paso Natural Gas Company.

TABLE 1 : Summary of Permit Requirements

Comment 1: SOx Monitoring/Recordkeeping - The "< 0.017 wt% (5gr/100 scf) should be replaced with "0.8 percent by weight" since the sulfur dioxide standard in R18-2-719.J references 0.8 weight percent.

Response: EPNG is required under FERC agreement to limit sulfur content in natural gas to less than 5 gr/scf which is equivalent to 0.017 weight percent. Our regulations require EPNG to limit the sulfur content to less than 0.8 weight percent. FERC stipulated 0.017% was specified as a reference. This has been removed to make the table consistent with the statements in permit conditions II.A.1 and II.B.1 of Attachment "B". The table has been updated to reflect this change.

Comment 2: NOx, CO, VOC, HAPs Testing Frequency/Methods - The language should be revised to state as follows:

One time for NOx and CO on each turbine within 6 months of permit expiration if turbines are operated for 15 cumulative days using Method 20 and 10.

Response: EPNG is required to test one time only for those pollutants which are emitted in excess of 100 tons/year and for which there are no applicable standards. Hackberry compressor station emits only NOx in excess of 100 tons/year. Therefore, clarification will be made by revising the language to say the following:

One time for NOx on each turbine within six months of permit expiration if turbines are operated for more than 15 cumulative days using Method 20.

Comment 3: F4 a and b. Mobile Sources - Monitoring/Recordkeeping - The language should be revised as follows:

Record of all emissions related maintenance activities performed on Permittee's roadway and site

cleaning machinery stationed at the facility.

Response: The table has been modified to include the language "stationed at the facility". F.4.a and F.4.b now read as follows:

F.4.a. Records of emissions related maintenance activities performed on Permittee's off-road machinery stationed at the facility.

F.4.b. Records of emissions related maintenance activities performed on Permittee's roadway and site cleaning machinery stationed at the facility.

ATTACHMENT A

Comment 4: *II. Compliance with permit conditions:*

A. The first sentence of this provision should be reworded to conform to the permit shield provisions of R18-2-325 as follows:

The Permittee shall comply with all conditions of this permit, which sets forth all applicable requirements of Arizona air quality statutes and the air quality rules.

The existing language could be read as requiring the Permittee to comply with "all applicable requirements" which contradicts the purpose of a Class I permit.

Response: This change has been made.

Comment 5: *XVII. Testing Requirements*

EPNG understands that normal rated capacity means capacity reflecting ambient temperature, pressure and humidity conditions present during the emissions test. EPNG also understands that ADEQ's inclusion of the provision allowing for performance testing at lower operational rates with the Director's prior written approval acknowledges that at certain times there may be insufficient natural gas throughput to operate at "normal rated capacity" in which case testing may be deferred or conducted at a lower operating rate. While EPNG would prefer that ADEQ include permit language defining normal rated capacity as capacity reflecting ambient conditions and available pipeline capacity, EPNG is willing to accept ADEQ's explanation of its intent in the Technical Review Document and response to these comments.

Response: ADEQ is aware that EPNG may or may not operate the turbines at their normal rated capacity, during the life of the permit. Given the unpredictability in operations, it was decided that the optimal course of action would be to obtain written approval from the Director at the time of testing, if the testing is to be performed at a lower rate. This comment does not result in a change in the permit language.

ATTACHMENT B

Comment 6: *Emissions Limitations (I.B.1.b.3)*

EPNG understands that dust suppressants or wetting agents are to be used during construction operations, repair operations, and demolition activities directly associated with earth moving or excavation activities likely to generate excessive amounts of particulate matter and not for any

construction operation, repair operation, or demolition activity. EPNG requests ADEQ clarification if this is not ADEQ's intent.

Response: The intent of condition I.B.1.b.3 of Attachment "B" of the permit is to regulate excessive emissions of particulate matter. The intent of this condition is further clarified by the wording of condition I.B.1.b which is as follows: "Permittee shall employ the following methods to *prevent excessive amounts of particulate matter from becoming airborne*:". Those construction, repair, or demolition operations that have no associated particulate matter emissions are not subject to the requirements of condition I.B.1.b.3 of Attachment "B" of the permit. This comment does not result in a change in the permit language.

Comment 7: Emissions Limitations (I.C.5)

On occasion, EPNG personnel will need service air conditioners at remote compressor stations. Therefore, we need to add #5. When contracting air conditioner maintenance service, the contractor will ensure that requirements of 40 CFR 82-Subpart F are met. Since some parts of Subpart F are applicable only to manufacturers or importers of recycling equipment or other particular situations, the language below notes that only "applicable" requirements must be met by EPNG.

5. Nonvehicle Air Conditioner Maintenance and/or Services

When Permittee's employees are servicing applicable appliances, the permittee shall comply with applicable requirements of 40 CFR 82- Subpart F.

Response: The Permittee originally stipulated in their permit application that air conditioning servicing was expected to be performed by outside contractors. During the public comment period, EPNG decided that they might perform such activities themselves and requested for the inclusion of applicable requirements of 40 CFR 82 - Subpart F in the permit. The following condition has been added in I.C.5 in Attachment "B" of the permit.

Permittee shall comply with all of the requirements of 40 CFR 82 Subpart F (Protection of Stratospheric Ozone - Recycling and Emissions Reduction).

Comment 8: Monitoring and Recordkeeping (II.A.1)

EPNG understands that we need to maintain an updated copy of the extracted portion of the FERC approved tariff which pertains to the sulfur content and lower heating value of the fuel and not the entire FERC tariff which is a voluminous and periodically edited document. EPNG requests ADEQ clarification if this is not ADEQ's intent.

Response: The intent of condition II.A.1 of Attachment "B" of the permit is to monitor particulate and sulfur dioxide emission standards only. The language has been modified to further clarify that tariff information relating only to lower heating value and fuel sulfur content needs to be kept on file. The modified language is reproduced below:

Permittee shall monitor daily, the sulfur content and lower heating value of the fuel being combusted in the gas turbines. This requirement may be complied with by maintaining a copy of **that part of** the Federal Energy Regulatory Commission (FERC) approved Tariff agreement that limits transmission to pipeline quality natural gas of sulfur content less than 0.8 percent by weight and having a heating value greater than or equal to 967 Btu/ft³.

Comment 9: Monitoring and Recordkeeping (II.B.1)

For a more streamlined permit, EPNG suggests that ADEQ consider combining the identical provisions of II.B.1.c through II.B.1.i. EPNG proposes

c. Dates on which any of the activities listed in I.B.1.b.(3) through (9) were performed, and control measured adopted.

Response: The current format of condition II.B.1 of Attachment “B” of the permit will be retained since it enhances the readability of the permit.

Comment 10: Monitoring and Recordkeeping (II.C.1)

A record of the abrasive blasting project requires a log in ink. EPNG requests that “in ink” be removed since it implies that a handwritten rather than a printed electronic log must be kept. Many other agencies such as DOT and Arizona Corporation Commission accept electronic recordkeeping. Since EPNG must comply with the every 6 month compliance certification, it is our duty to assure that the records are accurate and complete.

Response: The language of condition II.C.1 of Attachment “B” of the permit has been modified as follows:

“Each time an abrasive blasting project is conducted, the Permittee shall log in ink **or in an electronic format**, a record of the following:....”

Comment 11: Monitoring and Recordkeeping (II.C.2)

A record of the spray painting project requires a log in ink. EPNG requests that “in ink” be removed since it implies that a handwritten rather than a printed electronic log must be kept. Many other agencies such as DOT and Arizona Corporation Commission accept electronic recordkeeping. Since EPNG must comply with the every 6 month compliance certification, it is our duty to assure that the records are accurate and complete.

Response: The language of condition II.C.2 of Attachment “B” of the permit has been modified as follows:

“Each time an spray painting project is conducted, the Permittee shall log in ink **or in an electronic format**, a record of the following:....”

Comment 12: Monitoring and Recordkeeping (II.C.3)

EPNG continues to assert that there is no strict correlation between maintenance activities and exceeding the 40 % opacity standard for mobile sources. EPNG objects to the current provision to the extent that it seeks to require recordkeeping of mobile sources that are not permanently or semi-permanently maintained at the station. EPNG understands that equipment brought in from other areas of the system must comply with the mobile source requirements of 18-2-802 and R18-2-804(a), but mobile equipment stationed elsewhere should not be subject to site-specific permit requirements. EPNG has mobile sources located in El Paso, Gallup, and other locations within the EPNG system. The current permit language requires a record of maintenance activities of Permittee’s equipment. “Permittee’s equipment” could mean equipment stationed in El Paso or other EPNG locations that would never be used at the permitted facility. Therefore, EPNG requests that the permit language be revised as follows:

The Permittee shall keep a record of all emissions related maintenance activities performed on Permittee's mobile sources stationed at the facility as per manufacturer's specifications.

Response: ADEQ agrees with EPNG. The language has been changed to include "stationed at the facility".

Comment 13: *Monitoring and Recordkeeping (II.C.5)*

On occasion, EPNG personnel will need service air conditioners at remote compressor stations. Therefore, we need to Add #5. When contracting air conditioner maintenance service, the contractor will ensure that requirements of 40 CFR 82-Subpart F are met. Since some parts of Subpart F are applicable only to manufacturers or importers of recycling equipment or other particular situations, the language below notes that only "applicable" requirements must be met by EPNG.

5. Nonvehicle Air Conditioner Maintenance and/or Services

As a means of demonstrating compliance with condition I.C.5 of this Attachment, the Permittee shall keep a record of all relevant paperwork of 40 CFR Part 82-Subpart F applicable requirements on file.

Response: Please see Comment #7. The following condition has been added in II.C.5 of Attachment "B" of this permit:

As a means of demonstrating compliance with condition I.C.5 of this Attachment, the Permittee shall keep a record of all paperwork relevant to the applicable requirements of 40 CFR 82 - Subpart F on file.

Comment 14: *Monitoring and Recordkeeping (II.D)*

EPNG understands that a log of all records does not preclude the use of a three ring binder or centralized file folders. EPNG requests ADEQ clarification if this is not ADEQ's intent. The location of records should be changed as follows:

Permittee may retain all records relating to this permit and a copy of the permit at the Topock Complex Office, 5499 Needle Mountain Road, Topock, AZ 86436.

Response: ADEQ agrees with EPNG that a log of all records does not preclude the use of a three ring binder or centralized file folders. Also, the location of records has been updated in the permit.

Comment 15: *Testing Requirements (IV.A)*

EPNG agrees with the Technical Review Document that there are no emission limits or standards for NOx and CO for the units at the facility. EPNG does not believe that R18-2-719 or any other applicable requirement establishes NOx and CO emissions standards applicable to the station. Although EPNG believes there is no basis for NOx and CO testing requirements, EPNG does, however, understand ADEQ's intent in providing corroborating data to supplement the existing emissions estimates. By agreeing to this one-time test, EPNG is not conceding that any such testing is required.

Response: EPNG's stance on this issue has been noted. Only testing for emissions of NOx is applicable to the Hackberry facility.

ATTACHMENT C

Comment 16: EPNG requests that the following additional item be added to the list of "requirements specifically identified as applicable":

40 CFR 82 - Protection of Stratospheric Ozone - Subpart F - Recycling and Emissions Reduction

Response: Please see Comment #7. This item has been added to the relevant list in Attachment C of the permit.

Comment 17: EPNG requests that the following additional item be added to the list of "requirements specifically identified as not applicable":

R18-2-901.39 - New Source Performance Standard - Stationary Gas Turbines

Response: The turbines at Hackberry were installed in 1966 and since then have not been modified with a capital expenditure (they performed a screwdriver uprate of 348 hp on each turbine in 1991). Therefore, these turbines are not subject to NSPS. However, this item already was on the non applicable list in Attachment C of the permit.

ATTACHMENT D

Comment 18: There is no notation at the bottom of the table for the asterisk next to "Size".

Response: This item has been added to the permit.

Comment 19: The Date of Manufacture in the table should be changed to "Date of Installation/Date of Manufacturer".

Response: This change has been made.

ADDITIONAL CHANGES MADE TO PERMIT

Change 1: The original location of the Hackberry compressor station stated in the permit application was: 20 miles E of Kingman, ½ mile N off I-40, Exit 71. A more accurate location was supplied by EPNG on September 25, 1997 and was updated in the Summary on Page 1 of the permit to read:

20 miles east of Kingman, Arizona, one mile north off Interstate 40 at Exit 71

Change 2: EPNG provided the following comment for the Seligman Compressor Station permit #1000158:

Opacity: The table should include exemption for the first 10 minutes after cold starting as noted in R18-2-719.E.

Response: ADEQ agrees with EPNG. Because this is applicable to the Hackberry station as well, the exemption for the first 10 minutes after cold starting has also been added to the table in the Hackberry permit.

Change 3: EPNG provided the following comment for the Seligman Compressor Station permit #1000158:

F.1.b - "Unused open areas" - Remove "Monthly status of unused open areas" and keep only "Dates fresh vegetation added" so that it is consistent with Attachment B.II.B.1.b.

Response: Because this was applicable to the Hackberry station as well, the requirement to record monthly status of open areas has been removed from the Hackberry summary table. This change makes the table consistent with the permit condition II.B.1.b in Attachment B.

Change 4: EPNG provided the following comment for the Alamo Lake Compressor Station permit #1000604:

Testing Requirements (IV.A1)

At some EPNG locations, there is a high pressure pipeline system and low pressure pipeline system that is distinct and each system is connected to only one particular turbine unit. Therefore, if there is no means of routing the natural gas between the systems, one unit may operate while the other may not. Since the intent of the requirement is to mandate testing of a particular unit, the fifteen cumulative days should be unit specific rather than location specific.

The requirement to conduct a performance test on the GE turbine engine if the cumulative days of operation of all engines during the permit term exceed fifteen days should be changed to read as follows:

Permittee shall conduct performance tests on the General Electric turbine engine if the cumulative days of operation of the unit during the permit term exceed fifteen days.

Response: In order to ensure consistency among all the compressor station permits and to ensure economic parity among all Permittees, ADEQ has decided to require performance testing of all units at a location if the combined operation of all the units at the location exceeds fifteen days. Hence, a reprieve from testing cannot be granted.

It is ADEQ's intent to provide corroborating data for non-NSPS sources to supplement the existing emission estimates through one-time testing of non-NSPS sources during the life of the permit. ADEQ understands that it may so happen that only one unit is operated during the permit term for reasons

quoted in Comment 15 and the other is not operated at all during permit term and hence need not be tested. It is exactly this situation that ADEQ wishes to avoid by mandating a one time testing of a non-NSPS unit based on cumulative days of operation of all turbines combined exceeding fifteen days during the permit term. There is no change in the permit term.

Because the Hackberry compressor station also has two non-NSPS turbines, and because these situations are similar, the language in the testing section of the Hackberry permit was clarified to read as follows:

The Permittee shall conduct one set of performance tests for nitrogen oxides on each one of the turbine engines. Performance tests shall be performed on the engines if the cumulative days of operation of all engines **combined** during the permit term exceed fifteen days. These performance tests shall be completed within six months prior to this permit expiration. Each set of performance tests shall include all of the pollutants listed in Section IV.B of this Attachment.